IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	Kelly J. Reasoner	Examiner: Michael E. Butler
Serial No.:	10/665,132	Group Art Unit: 3653
Filed:	September 16, 2003	Docket No.: 100201882-1
Title:	Inventory Control Device	

APPEAL BRIEF UNDER 37 C.F.R. § 41.37

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

    This Appeal Brief is filed in response to the Final Office Action mailed July 9, 2007, Notice of Appeal filed on October 9, 2007, and Notice of Non-Compliant Appeal Brief mailed December 31, 2007.

AUTHORIZATION TO DEBIT ACCOUNT

    It is believed that no extensions of time or fees are required, beyond those that may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 C.F.R. § 1.136(a), and any fees required (including fees for net addition of claims) are hereby authorized to be charged to Hewlett-Packard Development Company's deposit account no. 08-2025.

I. REAL PARTY IN INTEREST

The real party in interest is Hewlett-Packard Development Company, LP, a limited partnership established under the laws of the State of Texas and having a principal place of business at 20555 S.H. 249 Houston, TX 77070, U.S.A. (hereinafter "HPDC"). HPDC is a Texas limited partnership and is a wholly-owned affiliate of Hewlett-Packard Company, a Delaware Corporation, headquartered in Palo Alto, CA. The general or managing partner of HPDC is HPQ Holdings, LLC.

II. RELATED APPEALS AND INTERFERENCES

There are no known related appeals, judicial proceedings, or interferences known to appellant, the appellant's legal representative, or assignee that will directly affect or be directly affected by or have a bearing on the Appeal Board's decision in the pending appeal.

III. STATUS OF CLAIMS

Claims 1-3, 5-7, 9-11, and 14-16 are pending in the application. Claims 14-16 are withdrawn, and claims 4, 8, and 12-13 are canceled. The final rejection of claims 1-3, 5-7, and 9-11 is appealed.

Applicants note that the Final Office Action mailed 07/09/2007 incorrectly indicates that claims 14-17 are withdrawn: claim 17 was never submitted in the application.

IV. STATUS OF AMENDMENTS

No amendments were made after receipt of the Final Office Action. All amendments have been entered.

V. SUMMARY OF CLAIMED SUBJECT MATTER

The following provides a concise explanation of the subject matter defined in each of the claims involved in the appeal, referring to the specification by page and line number and to the drawings by reference characters, as required by 37 C.F.R. § 41.37(c)(1)(v). Each element of the claims is identified by a corresponding reference to the specification and drawings where applicable. Note that the citation to passages in the specification and drawings for each claim element does not imply that the limitations from the specification and drawings should be read into the corresponding claim element or that these are the sole sources in the specification supporting the claim features.

Claim 1

An inventory control device comprising (FIGS. 1-3 show an exemplary data storage system 100; paragraph [0011]):

a latch positioned in relation to an access device of a data storage system so that opening the access device causes the latch to move from a first position to a second position (as illustrated in FIGS. 3A-3C, opening the access device 120 causes the latch 304 to move from a first position, FIG. 3A, to second position, FIGS. 3B, 3C; paragraph [0016]);

a sensor to sense a latch state indicating the position of the latch (Figs. 3A-3C show a sensor 306, such as an optical interrupter, that senses a state indicating a position or movement of the latch; paragraph [0016]);

control logic communicatively coupled to the sensor, to cause the data storage system to inventory one or more storage locations associated with the access device if the sensor indicates the latch is in the second position and the access device is closed, and to cause the data storage system to not inventory the one or more storage locations if the sensor indicates the latch is in the first position and the access device is closed (control logic 220 obtains position of the latch and uses this information to determine whether to take an inventory of cartridges; paragraphs [0019] – [0021]); and

an actuator operatively associated with said latch and said control logic, said actuator being operable to move said latch from the second position to the first position, said control logic operating said actuator to move said latch from

the second position to the first position (the control logic causes the actuator 302 or other mechanism to return the latch back to the position indicating the device was not opened; paragraph [0020]).

Claim 7

A method comprising:

obtaining a position of a latch, the latch being moveable between a first position and a second position, the first position of the latch indicating if an access device of a data storage system was not opened while the data storage system was shut down, the second position of the latch indicating if the access device of the data storage system was opened while the data storage system was shut down (FIG. 4, 405: after the system is started or restarted, the control logic 220 obtains the position of the latch 304; paragraph [0019]);

causing the data storage system to perform an inventory on one or more storage locations associated with the access device if the latch is in the second position (FIG. 4, 415: control logic 220 causes an inventory to be performed when the latch state indicates the access device 120 was opened; paragraphs [0019] and [0020]);

causing the data storage system to not perform the inventory on the one or more storage locations if the latch is in the second position (FIG. 4, 410: if the access device was not opened, it is not necessary to inventory the storage locations; paragraph [0021]; and

operating an actuator to cause the actuator to move the latch from the second position to the first position (the control logic causes the actuator 302 or other mechanism to return the latch back to the position indicating the device was not opened; paragraph [0020]).

Claim 11

An inventory control device comprising (FIGS. 1-3 show an exemplary data storage system 100; paragraph [0011]):

latch means (#304) positioned in relation to an access device means of a data storage system means so that opening the access device causes the latch means to move

from a first position to a second position (as illustrated in FIGS. 3A-3C, opening the access device 120 causes the latch 304 to move from a first position, FIG. 3A, to second position, FIGS. 3B, 3C; paragraph [0016]);

sensing means (#306) to sense a latch state indicating the position of the latch (Figs. 3A-3C show a sensor 306, such as an optical interrupter, that senses a state indicating a position or movement of the latch; paragraph [0016]);

logic means (#220) communicatively coupled to sensing means, to cause the data storage system means to inventory one or more storage locations associated with the access device means if the latch state indicates the latch means is in the second position and the access device is closed, and to cause the data storage system to not inventory the one or more storage locations if said sensing means indicates said latch means is in the first position and the access device is closed (control logic 220 obtains position of the latch and uses this information to determine whether to take an inventory of cartridges; paragraphs [0019] – [0021]); and

actuator means (#302) operatively associated with said latch means and responsive to said logic means, said actuator means moving said latch means from the second position to the first position, said logic means controlling said actuator means to move said latch means from the second position to the first position (the control logic causes the actuator 302 or other mechanism to return the latch back to the position indicating the device was not opened; paragraph [0020]).

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Claims 1, 7, 9, and 11 are rejected under 35 U.S.C. 102(e) as being anticipated by USPN 6,782,448 (Goodman).

Claim 1-3 and 7, 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,782,448 (Goodman) in view of US publication number 2002/0138174A1 (Chaloner).

Claim 1, 5-7, 9, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,782,448 (Goodman) in view of US publication number 2004/0118215A1 (Reasoner).

Claims 1, 7, and 11 are rejected under the judicially created doctrine of double patenting over claims 6, 9, and 13 of USPN 6,741,907 (Chaloner '907).

Claims 7 and 9-11 are rejected under the judicially created doctrine of double patenting over claims 14, 5, 8-9, and 13-15 of USPN 6,907,314 (Reasoner '314).

VII. ARGUMENT

The rejection of claims 1-3, 5-7, and 9-11 is improper, and Applicants respectfully request reversal of these rejections.

Overview of Claims

As a precursor to the arguments, Applicants provide an overview of the claims and Goodman. Claim 1 is chosen for discussion.

Independent claim 1 is directed to an inventory control device that determines whether or not to perform an inventory of data cartridges stored in the inventory control device (for example, a tape storage library). When an access device (for example, a drawer) is opened, a latch moves from a first position to a second position. A sensor detects the position of the latch, i.e., whether the latch is in the first position or the second position. Control logic coupled to the sensor causes an inventory operation to be conducted if the latch is in the second position. By contrast, if the latch remains in the first position, then no inventory is performed since the access device was not opened. The inventory control device also includes an actuator. The actuator moves the latch back from the second position to the first position.

Goodman teaches a storage library that can update firmware without shutting down the storage library and then causing an inventory to occur. When firmware updates are received, they are stored in the storage library. After the firmware is updated, the storage library is reset. An inventory, however, does not occur at this time since Goodman tracks that the reset was due to a firmware update (see Goodman at col. 12, lines 4-23).

Claim Rejections: 35 USC § 102(e)

Claims 1, 7, 9, and 11 are rejected under 35 U.S.C. 102(e) as being anticipated by USPN 6,782,448 (Goodman). These rejections are traversed.

Goodman Not Teach/Suggest All Claim Elements

Goodman does not teach or suggest all of the elements in the claims. Claim 1 is selected for discussion.

As one example, claim 1 recites a latch that _moves_ from a first position to a second position. In other words, claim 1 recites an object (i.e., a latch) that moves between two positions. The Examiner argues that this element is taught in Goodman. Applicants respectfully disagree.

Column 12, lines 33-35 in Goodman teach a door monitoring switch that could "latch" an indicator if a door was opened to indicate that an inventory operation should be conducted. Nowhere does Goodman provide any additional details of a door monitoring switch, an indicator, or how the door monitoring switch could somehow "latch" the indicator. Goodman provides no details about how the switch works. Indeed, because Goodman uses the word "latch" as a verb to describe how the door monitoring switch interacts with the indicator, it cannot be said that Goodman discloses a latch (i.e., as a noun) that _moves_. Even if it were proper (which it is not) to view Goodman's description as disclosing a latch (as a thing as opposed to an action), Goodman does not disclose a latch that _moves_ from a first position to a second position.

Anticipation under section 102 can be found only if a single reference shows exactly what is claimed (see _Titanium Metals Corp. v. Banner_, 778 F.2d 775, 227 U.S.P.Q. 773 (Fed. Cir. 1985)). For at least these reasons, the claims are allowable over Goodman.

As another example, claim 1 recites an actuator that moves the latch from the second position to the first position. The Examiner argues that this element is taught in Goodman at column 11, line 65 to column 12, line 3. Applicants respectfully disagree.

Column 11, line 65 to column 12, line 3 in Goodman teaches a robot accessor (also known in the art as a picker) that moves and reads cartridges in the storage library. The robot accessor or picker grabs cartridges and transfers them to read/write drives. A

robot accessor is not an actuator. It is not reasonable to equate an actuator that moves a latch with a robot accessor.

According to MPEP § 2111.01, the words of a claim must be given their "plain meaning." Goodman teaches that the robot accessor is used to grip storage media and transport the media to storage shelves or drives (see Goodman at column 4, lines 37-42). Thus, Goodman uses the term "robot accessor" per the plain meaning of this term.

Applicants acknowledge that claims must be given their broadest interpretation during patent examination. However, this interpretation must be a "**reasonable interpretation consistent with the specification**" (see MPEP 2111: emphasis added). Goodman and Applicants' specification repeatedly use the terms robot accessor and picker in a manner consistent with the plain meaning of this term. A robot accessor is not an actuator to move a latch, and it is unreasonable to equate a robot accessor as an actuator that moves a latch.

For a prior art reference to anticipate under section 102, every element of the claimed invention must be identically shown in a single reference (see *In re Bond*, 910 F.2d 831, 15 U.S.P.Q.2d 1566 (Fed. Cir. 1990)). For at least these reasons, the claims are allowable over Goodman.

As yet another example, claim 1 recites that the actuator moves the latch from one position to another position. The Examiner equates the robot accessor in Goodman with the claimed actuator. The Examiner also equates the door monitoring switch in Goodman with the claimed latch. Thus, the issue is: Does the robot accessor in Goodman move the door monitoring switch? It does not.

The robot accessor in Goodman functions to move cartridges in the library and read bar codes on the cartridges. By contrast, the door monitoring switch in Goodman provides an indication whether a door to the storage library is opened. The robot accessor in Goodman never moves the door monitoring switch.

Anticipation is established only when a single prior art reference discloses each and every element of a claimed invention united in the same way (see *RCA Corp. v. Applied Digital Data Systems, Inc.*, 730 F.2d 1440, 1444 (Fed. Cir. 1984)). For at least these reasons, the claims are allowable over Goodman.

Claim Rejections: 35 USC § 103(a)

Claim 1-3 and 7, 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,782,448 (Goodman) in view of US publication number 2002/0138174A1 (Chaloner). These rejections are traversed.

As noted above, Goodman fails to teach or suggest all of the elements of the independent claims. Chaloner fails to cure these deficiencies. Thus, each of the independent claims recites one or more elements that are not taught or suggested in Goodman in view of Chaloner. **These missing elements show that the differences between the combined teachings in the art and the recitations in the claims are great.** As such, the pending claims are **not** a predictable variation of the art to one of ordinary skill in the art. Thus for at least the reasons given above, the claims are allowable over Goodman in view of Chaloner.

Claim Rejections: 35 USC § 103(a)

Claim 1, 5-7, 9, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,782,448 (Goodman) in view of US publication number 2004/0118215A1 (Reasoner). These rejections are traversed.

As noted above, Goodman fails to teach or suggest all of the elements of the independent claims. Reasoner fails to cure these deficiencies. Thus, each of the independent claims recites one or more elements that are not taught or suggested in Goodman in view of Reasoner. **These missing elements show that the differences between the combined teachings in the art and the recitations in the claims are great.** As such, the pending claims are **not** a predictable variation of the art to one of ordinary skill in the art. Thus for at least the reasons given above, the claims are allowable over Goodman in view of Reasoner.

Claim Rejections: Double Patenting

Claims 1, 7, and 11 are rejected under the judicially created doctrine of double patenting over claims 6, 9, and 13 of USPN 6,741,907 (Chaloner '907). These rejections are traversed.

On April 13, 2007, Applicants filed a terminal disclaimer rendering this rejection moot. The Examiner has failed to recognized this timely filed terminal disclaimer.

Claim Rejections: Double Patenting

Claims 7 and 9-11 are rejected under the judicially created doctrine of double patenting over claims 14, 5, 8-9, and 13-15 of USPN 6,907,314 (Reasoner '314). These rejections are traversed.

On April 13, 2007, Applicants filed a terminal disclaimer rendering this rejection moot. The Examiner has failed to recognized this timely filed terminal disclaimer.

CONCLUSION

In view of the above, Applicants respectfully request the Board of Appeals to reverse the Examiner's rejection of all pending claims.

Any inquiry regarding this Amendment and Response should be directed to Philip S. Lyren at Telephone No. 832-236-5529. In addition, all correspondence should continue to be directed to the following address:

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Respectfully submitted,

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VIII. Claims Appendix

1. An inventory control device comprising:

a latch positioned in relation to an access device of a data storage system so that opening the access device causes the latch to move from a first position to a second position;

a sensor to sense a latch state indicating the position of the latch;

control logic communicatively coupled to the sensor, to cause the data storage system to inventory one or more storage locations associated with the access device if the sensor indicates the latch is in the second position and the access device is closed, and to cause the data storage system to not inventory the one or more storage locations if the sensor indicates the latch is in the first position and the access device is closed; and

an actuator operatively associated with said latch and said control logic, said actuator being operable to move said latch from the second position to the first position, said control logic operating said actuator to move said latch from the second position to the first position.

2. The device of claim 1, wherein the access device comprises a data storage drawer.

3. The device of claim 2, wherein the storage locations comprise data cartridge locations within the data storage drawer.

4. (canceled).

5. The device of claim 1, wherein the actuator comprises a solenoid.

6. The device of claim 1, wherein the sensor comprises an optical interrupter.

7. A method comprising:

obtaining a position of a latch, the latch being moveable between a first position and a second position, the first position of the latch indicating if an access device of a data storage system was not opened while the data storage system was shut down, the second position of the latch indicating if the access device of the data storage system was opened while the data storage system was shut down;

causing the data storage system to perform an inventory on one or more storage locations associated with the access device if the latch is in the second position;

causing the data storage system to not perform the inventory on the one or more storage locations if the latch is in the second position; and

operating an actuator to cause the actuator to move the latch from the second position to the first position.

8. (canceled).

9. The method of claim 7, wherein obtaining the position of the latch comprises obtaining a latch state indicating the position of the latch by means of a sensor.

10. The method of claim 7, wherein the access device comprises a data storage drawer.

11. An inventory control device comprising:

     latch means positioned in relation to an access device means of a data storage system means so that opening the access device causes the latch means to move from a first position to a second position;

     sensing means to sense a latch state indicating the position of the latch;

logic means communicatively coupled to sensing means, to cause the data storage system means to inventory one or more storage locations associated with the access device means if the latch state indicates the latch means is in the second position and the access device is closed, and to cause the data storage system to not inventory the one or more storage locations if said sensing means indicates said latch means is in the first position and the access device is closed; and

     actuator means operatively associated with said latch means and responsive to said logic means, said actuator means moving said latch means from the second position to the first position, said logic means controlling said actuator means to move said latch means from the second position to the first position.

12. (canceled)

13. (canceled)

14. A data storage system comprising:

an access device; a plurality of data cartridges disposed in the access device;

a mechanical device moveable between first and second positions, the mechanical device positioned in relation to the access device so that opening the access device causes the mechanical device to change position; and

control logic coupled to the mechanical device, to sense movement of the mechanical device and to initiate inventory of the data cartridges if the position of the mechanical device indicates the access device was opened while the data storage system was shut down.

15. The data storage system of claim 14, wherein the mechanical device comprises a latch.

16. The data storage system of claim 14, further comprising a flag positioned in relation to the access device so that at least partially opening the access device causes the flag to contact the mechanical device and move the mechanical device from the first position to the second position.

IX. EVIDENCE APPENDIX

None.

X. RELATED PROCEEDINGS APPENDIX

None.